

K101216

510(k) Summary

JAN 14 2011

A. Submitter

Aalto Scientific, Ltd.  
1959 Kellogg Ave.  
Carlsbad, CA 92008  
Telephone: (760) 431-7922  
Fax: (760) 431-6824

B. Contact Person

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E-mail: dlyakov@aaltoscientific.com

C. Date of Summary Preparation

December 03, 2010

D. Device Identification

Product Trade Name:	Audit™ MicroCV™ Protein Linearity Set
Common Name:	Protein Linearity
Classification Name:	Assay QC Material
Device Classification:	Class I
Regulation Number:	21 CFR 862.1660
Panel:	75
Product Code:	JJY

E. Device to Which Substantial Equivalence is Claimed

Audit™ MicroCV™ General Chemistry Linearity Set  
Aalto Scientific, Ltd., Carlsbad, CA  
K042318

## F. Description of the Device

The Audit™ MicroCV™ Protein Linearity Set is a human based, five level set of QC material, with each level containing seven analytes: Alpha-1-Antitrypsin, Complement C3, Complement C4, Immunoglobulin G, Immunoglobulin A, Immunoglobulin M, and Transferrin. It is used to confirm the proper calibration, linear operating range, and reportable range of the analytes listed. Level A is near the lower limit level and Level E has concentrations near the upper limit of instruments. Levels B – D are related by linear dilution of Level A and Level E.

## G. Statement of Intended Use

The Audit™ MicroCV™ Protein Linearity is assayed quality control material consisting of five levels protein (human) based serum. Each level contains Alpha-1-Antitrypsin, Complement C3, Complement C4, Immunoglobulin G, Immunoglobulin A, Immunoglobulin M and Transferrin analytes. The five levels demonstrate a linear relationship to each other for Alpha-1-Antitrypsin, Complement C3, Complement C4, Immunoglobulin G, Immunoglobulin A, Immunoglobulin M, and Transferrin analytes. It is intended to simulate human patient serum samples and to detect systematic analytical deviations of laboratory testing procedures for Alpha-1-Antitrypsin, Complement C3, Complement C4, Immunoglobulin G, Immunoglobulin A, Immunoglobulin M, and Transferrin. The product is intended for use with quantitative assays on the indicated analyzer provided in the labeling. The Audit MicroCV Protein Linearity Set is "For In Vitro Diagnostic Use Only."

## I. Summary of Performance Data

Stability studies have been performed to determine the open vial stability and shelf life for the Audit™ MicroCV™ Protein Linearity Set. All supporting data is retained on file at Aalto Scientific, Ltd. Product claims are as follows:

*Open Vial Stability:* Once a vial has been opened, all analytes will be stable for 1 day when stored tightly capped at 2 - 8° C.

*Shelf Life:* One year, when stored unopened at 2 - 8° C.

*Note:* Real time studies are ongoing to support the shelf life of this product.

## H. Technical Characteristics Compared to Predicate Device

Characteristics	Audit™ MicroCV™ Protein Linearity Set (K101216)	Audit™ MicroCV™ General Chemistry Linearity Set (K042318)
Intended Use	The Audit™ MicroCV™ Protein Linearity is assayed quality control material consisting of five levels protein (human) based serum. Each level contains Alpha-1-Antitrypsin, Complement C3, Complement C4, Immunoglobulin G, Immunoglobulin A, Immunoglobulin M and Transferrin analytes. The five levels demonstrate a linear relationship to each other for Alpha-1-Antitrypsin, Complement C3, Complement C4, Immunoglobulin G, Immunoglobulin A, Immunoglobulin M, and Transferrin analytes. It is intended to simulate human patient serum samples and to detect systematic analytical deviations of laboratory testing procedures for Alpha-1-Antitrypsin, Complement C3, Complement C4, Immunoglobulin G, Immunoglobulin A, Immunoglobulin M, and Transferrin. The product is intended for use with quantitative assays on the indicated analyzer provided in the labeling. The Audit MicroCV Protein Linearity Set is "For In Vitro Diagnostic Use Only."	Audit™ MicroCV™ General Chemistry Linearity Set is assayed quality control material consisting of human based serum. It is intended to simulate human patient serum samples for the purpose of monitoring the precision and to detect systematic analytical deviations of laboratory testing procedures. This product may also be used as unassayed quality control material for these same analytes.
Number of Analytes per vial	7	30
Number of levels per set	5	5
Contents	5 x 2 mL	5 x 5 mL
Matrix	Human Based Serum	Human Based Serum
Type of Analytes	Clinical Chemistry	General Chemistry

Form	Liquid	Lyophilized
Stabilizers	None	None
Preservatives	Sodium Azide	Sorbitol Sodium azide
Storage	2 to 8° C Until expiration date	2 to 8° C Until expiration date
Open Bottle Stability	24 hours at 2 to 8° C	24 hours at 2 to 8° C

## J. Conclusions

Based upon the purpose of the device, the descriptions and labeling of the predicate device, the safety and efficacy, and the stability data generated, the product is substantially equivalent to the predicate device.



DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service

Aalto Scientific  
c/o Dessi Lyakov  
1959 Kellogg Ave.  
Carlsbad, CA 92008

Food and Drug Administration  
10903 New Hampshire Avenue  
Silver Spring, MD 20993

Re: k101216  
Trade Name: Audit Micro CV Protein Linearity Set  
Regulation Number: 21 CFR §862.1660  
Regulation Name: Quality Control.  
Regulatory Class: Class I, reserved  
Product Codes: JJY  
Dated: December 3, 2010  
Received: December 7, 2010

JAN 14 2011

Dear Ms. Lyakov:

We have reviewed your Section 510(k) premarket notification of intent to market the device referenced above and have determined the device is substantially equivalent (for the indications for use stated in the enclosure) to legally marketed predicate devices marketed in interstate commerce prior to May 28, 1976, the enactment date of the Medical Device Amendments, or to devices that have been reclassified in accordance with the provisions of the Federal Food, Drug, and Cosmetic Act (Act) that do not require approval of a premarket approval application (PMA). You may, therefore, market the device, subject to the general controls provisions of the Act. The general controls provisions of the Act include requirements for annual registration, listing of devices, good manufacturing practice, labeling, and prohibitions against misbranding and adulteration.

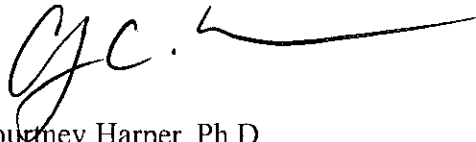
If your device is classified (see above) into either class II (Special Controls) or class III (PMA), it may be subject to such additional controls. Existing major regulations affecting your device can be found in Title 21, Code of Federal Regulations (CFR), Parts 800 to 895. In addition, FDA may publish further announcements concerning your device in the Federal Register.

Please be advised that FDA's issuance of a substantial equivalence determination does not mean that FDA has made a determination that your device complies with other requirements of the Act or any Federal statutes and regulations administered by other Federal agencies. You must comply with all the Act's requirements, including, but not limited to: registration and listing (21 CFR Part 807); labeling (21 CFR Parts 801 and 809); medical device reporting (reporting of medical device-related adverse events) (21 CFR 803); and good manufacturing practice requirements as set forth in the quality systems (QS) regulation (21 CFR Part 820).

If you desire specific advice for your device on our labeling regulation (21 CFR Parts 801 and 809), please contact the Office of *In Vitro* Diagnostic Device Evaluation and Safety at (301) 796-5450. Also, please note the regulation entitled, "Misbranding by reference to premarket notification" (21 CFR Part 807.97). For questions regarding the reporting of adverse events under the MDR regulation (21 CFR Part 803), please go to <http://www.fda.gov/MedicalDevices/Safety/ReportaProblem/default.htm> for the CDRH's Office of Surveillance and Biometrics/Division of Postmarket Surveillance.

You may obtain other general information on your responsibilities under the Act from the Division of Small Manufacturers, International and Consumer Assistance at its toll-free number (800) 638-2041 or (301) 796-7100 or at its Internet address <http://www.fda.gov/cdrh/industry/support/index.html>.

Sincerely yours,

A handwritten signature in black ink, appearing to read 'CHC', followed by a long horizontal line extending to the right.

Courtney Harper, Ph.D.  
Director  
Division of Chemistry and Toxicology  
Office of *In Vitro* Diagnostic Device  
Evaluation and Safety  
Center for Devices and Radiological Health

Enclosure

## Indications for Use

510(k) Number: K101216

Device Name: Audit™ MicroCV Protein Linearity Set

### Indications For Use:

The Audit™ MicroCV™ Protein Linearity is assayed quality control material consisting of five levels protein (human) based serum. Each level contains Alpha-1-Antitrypsin, Complement C3, Complement C4, Immunoglobulin G, Immunoglobulin A, Immunoglobulin M and Transferrin analytes. The five levels demonstrate a linear relationship to each other for Alpha-1-Antitrypsin, Complement C3, Complement C4, Immunoglobulin G, Immunoglobulin A, Immunoglobulin M, and Transferrin analytes. It is intended to simulate human patient serum samples and to detect systematic analytical deviations of laboratory testing procedures for Alpha-1-Antitrypsin, Complement C3, Complement C4, Immunoglobulin G, Immunoglobulin A, Immunoglobulin M, and Transferrin. The product is intended for use with quantitative assays on the indicated analyzer provided in the labeling. The Audit MicroCV Protein Linearity Set is "For In Vitro Diagnostic Use Only."

Prescription Use   X  

AND/OR

Over-The-Counter Use

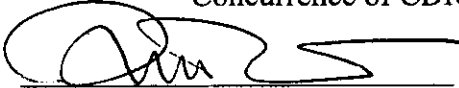
(Part 21 CFR 801 Subpart D)

(21 CFR 801 Subpart C)

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Concurrence of CDRH, Office of In Vitro Diagnostic Devices (OIVD)



Division Sign-Off  
Office of In Vitro Diagnostic Devices  
Evaluation and Safety

510(k) K101216

Aalto Scientific, Ltd.  
510(k) Notification  
Audit™ MicroCV™ Protein Linearity Set